LIBBY #3

SITE SAFETY PLAN

For

EMERGENCY AND RAPID RESPONSE SERVICES

LIBBY STIMSON MILL

U.S. EPA Region 8
999 18th Street, Suite 300
Denver, CO 80202

ERRS Region 8 Contract No.: 68-W-02-072
ERRS Region 8 Delivery Order No.: 072-08-012
EQ Project No.: 030218.0012

April 2005

Prepared By:

Environmental Quality Management, Inc.
6825 216th Street SW, Suite J
Lynnwood, Washington 98036

LIBBY #3

WORK AUTHORIZATION
Extension of Time &
Funds Increase

WA# 11A USCG
March 2005

AUTHORIZATION IS GIVEN TO INITIATE WORK AS DESCRIBED IN THE U.S. COAST GUARD TECHNICAL ASSISTANCE IAG #DW6995 3690-01 AND AS AMENDED. THIS INFORMATION IS PROVIDED FOR COST TRACKING PURPOSES.

To Be Filled Out by the On-Scene Coordinator: To provide technical assistance with oversight responsibilities of the cleanup at Libby Asbestos Residential Properties and Stimson Lumber Mill, Libby, Montana.

Brief Description of Work to Be Done: Provide assistance with Site Health and Safety planning/monitoring, collection and evaluation of Site samples, monitoring of cleanup contractor (s), review of cost documentation, and scheduling/mobilization of contractor (s).

Site Name: Libby Asbestos Residential Properties and Stimson Lumber Mill, Libby NPL Site, Libby, Montana.

EPA Site ID#: BC

On-Scene Coordinator: Craig Myers

Period of Performance: 08/31/04 (From) 09/30/05 (To)

Dollar Amount Needed: $35,000

To Be Filled Out by the IAG Project Officer: VOID Below - ready for revision

Previous Amount: $10,000 Total Amount to Date: $45,000

DCN: LRV002 - FY'2005

	IAG#	SUPERFUND ACCOUNT	OBJECT CLASS	AMOUNT
Deob. Fm:	DW69953690-01	05 T 8ALOE 302DC6C 08WQRV00	25.05	$35,000
Oblig. To:	DW69953690-01	05 T 8ALOE 302DC6C 08BCRV00	25.05	$35,000

---

for Mike Zimmerman
Craig Myers, On-Scene Coordinator — Date 3/28/05

Doug Skie, Director, Preparedness, Assessment, & Emergency Response Programs — Date 3/28/05

ORIGINAL TO: JEFF MARSALA, CINCINNATI FINANCIAL MGMT. CTR.

COPIES TO:
CAROL O,DONNELL, USEPA GRANTS SPECIALIST
MIKE ZIMMERMAN, USEPA PROJECT OFFICER
CRAIG MYERS, USEPA ON-SCENE COORDINATOR
MICHAEL POWERS, U.S.COAST GUARD, NPFC
CHRIS GARCIA, PACIFIC STRIKE TEAM

SSP SIGNATURE PAGE
Environmental Quality Management, Inc.

SITE SAFETY PLAN

For

EMERGENCY AND RAPID RESPONSE SERVICES

Stimson Mill

April 2005

Adopted By: _____ Date: _____
ERRS Response Manager / ERRS Safety Manager

Adopted By: _____ Date: _____
ERRS Deputy Program Manager

Adopted By: _____ Date: _____
U.S. EPA On-Scene Coordinator

This Site Safety Plan (SSP) has been prepared to meet the requirements of: Occupational Safety and Health Administration (OSHA) standards, 29 CFR Part 1910 and 29 CFR Part 1926, including the "Hazardous Waste Operations and Emergency Response" regulation (29 CFR §1910.120 and 29 CFR §1926.65) and other regulations that are referred to or cross referenced in these standards.

STIMSON MILL
SITE SAFETY PLAN ACKNOWLEDGEMENT

April 2005

I have reviewed the Site Safety Plan for **Stimson Mill** and understand the hazards presented on this project. I agree to follow the procedures outlined in this plan and to inform the EQ Project Manager should any unsafe conditions be noted. I understand that failure to follow safety requirements can be reason for removal from this project.

Name	Date	Organization

TABLE OF CONTENTS

TABLES

ATTACHMENTS

GLOSSARY OF ACRONYMS AND TERMS

ANSI	-	American National Standards Institute
APR	-	Air Purifying Respirator
ACM	-	Asbestos Containing Material
ACGIH	-	American Conference of Governmental Industrial Hygienists
AST	-	Aboveground Storage Tank
BMP's	-	Best Management Practices
CF	-	Code of Federal Regulations
CGI	-	Combustible Gas Indicator
Clean Zone	-	Support Zone
CRZ	-	Contamination Reduction Zone
Decon	-	Decontamination
EQ	-	Environmental Quality Management, Inc.
ERRS	-	Emergency and Rapid Response Services
EZ	-	Exclusion Zone
FEMA	-	Federal Emergency Management Agency
FID	-	Flame Ionization Detector
FOSC	-	Federal On-Scene Coordinator
GFCI	-	Ground Fault Circuit Interrupter
HAZWOPER	-	Hazardous Waste Operations and Emergency Response
HHW	-	Household Hazardous Waste
Hot Zone	-	Exclusion Zone
IAW	-	in accordance with
IDLH	-	Immediately Dangerous To Life & Health
MREM/HR	-	Milli-roentgens equivalent in man per hour
NIOSH	-	National Institute for Occupational Safety & Health
OSHA	-	Occupational Safety and Health Administration
OVA	-	Organic Vapor Analyzer
PEL	-	Permissible Exposure Limit
PID	-	Photoionization Detector
PPM	-	parts per million
PRP	-	Potentially Responsible Party
REL	-	Recommended Exposure Limit
RM	-	Response Manager
SAR	-	Supplied Air Respirator
SCBA	-	Self-Contained Breathing Apparatus
SOP	-	Standard Operating Procedure
START	-	Superfund Technical Assessment And Response Team
SZ	-	Support Zone
TLV	-	Threshold Limit Value
TWA	-	Time Weighted Average
U.S. EPA	-	U.S. Environmental Protection Agency
VOC	-	Volatile Organic Compounds

1.0 INTRODUCTION AND SITE BACKGROUND

This document describes the health and safety guidelines developed for the Stimson Mill Site to protect on-site personnel, visitors and the public from physical harm and exposure to hazardous materials or wastes. The procedures and guidelines contained herein were based upon the best available information at the time of the plan's preparation. Specific requirements will be revised when new information is received or conditions change. A written amendment will document all changes made to the plan. Any amendments to this plan will be included in Attachment A. Where appropriate, specific OSHA standards or other guidance will be cited and applied.

All work practices and procedures implemented on site must be designated to minimize worker contact with hazardous materials and to reduce the possibility of physical injury. All work will be performed in accordance with applicable Federal 29 CFR 1910 and 1926 Health and Safety Regulations and specifically 29 CFR 1910.120, Hazardous Operations and Emergency Response (HAZWOPER).

1.1 Daily Safety Meetings

Daily safety meetings will be held at the start of each shift to ensure that all personnel understand site conditions and operating procedures, to ensure that personal protective equipment is being used correctly, and to address worker health and safety concerns.

1.2 Site Safety Plan Acceptance / Acknowledgment

The FOSC or designated representative shall be responsible for informing all individuals entering the Exclusion Zone (EZ) or Contamination Reduction Zone (CRZ) of the contents of this plan and ensuring that each person signs the Site Safety Plan (SSP) Acknowledgment Form at the beginning of this plan. By signing the SSP Acknowledgment Form, an individual acknowledges that he/she recognizes the potential hazards present on-site and the policies and procedures required to minimize exposure or adverse effects of these hazards.

1.3 Site Background

The Libby site includes an inactive vermiculite mine located on Vermiculite Mountain in northwestern Montana, and portions of the town of Libby. The mine is approximately seven miles east northeast of the town. Although mining of Vermiculite Mountain dates back to the 1890s, large-scale mining was initiated by the Zonolite Company in the 1920s. W.R. Grace acquired the Zonolite Company in 1963 and continued mining operations until September 1990. The vermiculite mine has been operating under Montana Department of State Lands Operating Permit 00010 since 1972, under a State-approved reclamation plan. Of approximately 1200 acres of patented mining claims, 865 are known to be disturbed by mining activities.

The ore body from which the vermiculite ore was mined contains significant occurrences of amphibole asbestos. Processing of the vermiculite ore, with amphibole asbestos intermixed,

caused high dust and airborne releases of fine asbestos fibers. These fine asbestiform fibers have been linked by the Agency for Toxic Substances and Disease Registry (ATSDR) to certain kinds of lung disease and abnormalities. Amphibole asbestos contamination associated with the ore processing has been found in processing plants, residential yards, and school yards in the town of Libby and between the mine and the town.

Residences, schools, and businesses received vermiculite free of charge from W.R. Grace. On residences, vermiculite was used in gardens and for fill in other parts of residential properties. Some school areas, such as running tracks and football fields utilized vermiculite as fill. EPA's Removal Program has sampled many of these areas and has conducted removal actions at most, if not all, schools and at some residences and businesses. Many residences and businesses still have substantial quantities of asbestiform fibers that may pose a threat to the inhabitants or workers. EPA is conducting on-going emergency removal actions to address asbestos contamination in yards, schools, and other processing areas in town.

The Stimson Mill has was operated by several entities since its inception around the turn of the 20th Century. The Mill ceased operating in the 1900's. Vermiculite contaminated with asbestos has been used to insulate several walls and the roof of the Mobile Shop.

1.4 Scope of Work

EQ has been tasked by US EPA Region 8 to perform the following activities at the Site:

a. Mobile Shop Roof

The Mobile Shop roof consists of a tongue and groove lumber overlain with a 6-8 inch layer of concrete/vermiculite/concrete mixture. The concrete/vermiculite/concrete layer is covered with tar paper.

- Remove asbestos containing roofing materials
- Remove additional roofing materials if necessary
- Replace roof as directed

b. Mobile Shop Walls

Some of the Mobile Shop walls are constructed of tongue and groove lumber. The cavities between the tongue and groove lumber is filled with asbestos contaminated insulation (ACI).

- Remove VCI from wall cavities
- Remove the interior tongue and groove wall
- Clean wall cavity
- Encapsulate exterior walls

The site activities will be performed in stages. The roof abatement activities will be

performed as the first stage. The associated setup and tear down and equipment decontamination will be performed at the completion of this stage. The wall abatement will be performed as the second stage. The associated setup and tear down and equipment decontamination will be performed after the wall abatement is completed.

Site Information

Site Name:	Stimson Mill
Location:	Libby, Lincoln County, Montana

2.0 PROJECT ORGANIZATION

This section of the SSP provides information on key project personnel and a description of EQ personnel health and safety responsibilities.

2.1 Key Project Personnel

Federal On-Scene Coordinator (U.S. EPA) ..... Craig Myer, FOSC
Deputy Program Manager (EQ) ..... Ron McManamy, DPM
Response Manager (EQ) ..... Richard Singer, RM
Site Safety Officer (EQ) ..... Richard Singer, SSO

2.2 Roles and Responsibilities

Federal On-Scene Coordinator (FOSC):

The FOSC, Craig Myer, as the representative of the U.S. EPA, is responsible for overall project administration and for coordinating health and safety standards for all individuals on-site at all times. All U.S. EPA and contractors' health and safety guidelines and requirements as well as all applicable OSHA standards shall be applied. The FOSC is the overall site safety officer and will be responsible for the health and safety of on-site visitors. However, each contractor (as an employer under OSHA) is also responsible for the health and safety of its employees. If there is any dispute with regards to health and safety, the following procedures shall be followed:

1. Attempt to resolve the issue on-site;

2. If the issue cannot be resolved, on-site personnel shall consult off-site health and safety personnel for assistance and the specific task operation in dispute shall be discontinued until the issue is resolved.

Deputy Program Manager (DPM)

The Deputy Program Manager (DPM), Ron McManamy, is responsible for overall direction, coordination, technical consistency and review of the entire project contract. DPM health and safety responsibilities are listed below:

- Emphasize importance of safety and hold supervision / site personnel accountable for safe performance.
- Enforce implementation and compliance with the SSP and established health and safety procedures.
- Provide resources and support to the Response Manager and SSO for effective completion of duties.
- Communicate with the OSC to evaluate and resolve any health and safety issues.

Response Manager (RM):

The RM, as the field representative for the ERRS clean-up contractor, Environmental Quality Management, Inc. (EQ), has the responsibility for fulfilling the terms of the delivery order. EQ's RM for this response is Jason Coury.? The RM must oversee the project and ensure that all technical, regulatory and safety requirements are met. It is the RM's responsibility to communicate with the FOSC, as frequently as required and at least daily, regarding site clean-up progress and the resolution of any issues. The following are the health and safety responsibilities of the RM:

- Prepare and organize project activities on-site.
- Review and approve the site-specific SSP.
- Provide operational / health and safety equipment for project operations.
- Emphasize importance of safety and hold site personnel accountable for safe job performance.
- Enforce implementation / compliance with the SSP and established health and safety procedures.
- Ensure immediate correction of identified unsafe work conditions and / or work practices.
- Monitor and evaluate health and safety performance of project operations.

Foreman (FR)

The Foreman reports to the Response Manager and is responsible for the following:

- Ensuring the use of safe work practices by site personnel during work activities.
- Supervising various field operations and implementing safety procedures as directed by the Project Manager and/or Health and Safety Officer.

Field Team Members

Field Team Members are responsible for the following:

- Understanding and complying with the Health and Safety Plan and any additional health and safety instructions.
- Observing the "**Buddy System**" during work activities.
- Promptly reporting all injuries or illnesses to the Project Manager and/or Health and Safety Officer.
- Immediately reporting any violations of the Health and Safety Plan to the Project Manager and/or Health and Safety Officer.
- Completing other duties as assigned by the Project Manager and/or Foreman.

Subcontractors

It is anticipated that the following subcontracting services will be required:

- Heavy Equipment Rental
- Backfill
- Fuel Service

Is START going to be on site

Superfund Technical Assessment and Response Team (START):

The START contractor, URS Operating Services, Inc. is responsible for providing the FOSC with assistance and support in regards to all technical, regulatory and safety aspects of site activity. The START is also available to advise the FOSC on matters relating to sampling and treatment. URS shall conduct the following activities during removal activities:

- Preparing the Site Safety Plan and the Quality Assurance Project Plan (QAPP).
- Providing technical support to FOSC and the Emergency Response and Removal Service (ERRS) contractor as required. Documenting site activities and maintaining the official site file.
- Conducting site safety operations such as air monitoring.
- Evaluating regulations and standards.
- Collecting samples and conducting data validation and presenting data per FOSC request.
- Determining the extent of contamination and excavation areas per FOSC guidance.
- Recording sample locations using the Geographic Information System.
- Evaluating the effectiveness of removal actions and recommending additional measures if necessary.
- Evaluating treatment and disposal options.
- Conducting treat ability studies and preparing specifications for treatment options.
- Preparing the final removal report.

The Project Manager for START will be .

Site Safety Officer (SSO):

The ERRS and START Site Safety Officers will be assigned to the site on a full-time basis with functional responsibility for implementing the Site Safety Plan as it applies to ERRS and START personnel. The RM is the designated ERRS SSO. The Lead START Member is the designated START SSO unless otherwise appointed. Site audits may be conducted by the ERRS Safety Manager, START personnel, and/or the U.S. EPA, as approved by the FOSC.

Specific duties include:

- Assume responsibility for health and safety of ERRS and/or START personnel.
- Document safety problems.
- Supervise decontamination of personnel and equipment.
- Ensure that monitoring equipment is calibrated/operational.
- Conduct personal air monitoring on all ERRS and/or START employees as outlined in 29 CFR 1910.120(h)(4).
- Perform respirator fit tests.
- Inventory/inspect PPE prior to personnel site entries.
- Prepare summary letter of personal air sampling results.

- Select protective equipment levels based upon chemical properties, method of contact and air sample results.
- Prepare and maintain OSHA Log within three days of any accident.
- Insure all ERRS and/or START personnel are fit for duty based on medical surveillance reports.
- Inspect first aid kits, fire extinguishers and/or SCBAs.

Other:

Any person who observes safety problems should immediately report observations/concerns to appropriate key personnel listed in the following section (Section 2.3).

2.3 Key Personnel Contact Information

U.S. EPA On-Scene Coordinator (FOSC) / Site Safety Officer:

Craig Myer		
US EPA		
999 18th Street, Suite 300	Office	(303) 312-7067
Denver, CO 80202	Fax	(303) 312-6071

ERRS Contractor: Environmental Quality Management, Inc. (EQ)
ERRS Response Manager / Safety Manager:

Richard Singer		
Environmental Quality Management, Inc.		
16 Lakeside Lane	Office	(303) 433-2207
Denver, CO 80212	Fax	(303) 433-5674

START Contractor: URS Operating Services, Inc.
Lead START Member/ Site Safety Officer: IS SOMEONE GOING TO BE ON SITE
IF NOT THIS SHOULD BE REMOVED

3.0 TASK SAFETY AND HEALTH RISK ANALYSIS

3.1 EQ Work Task Organization

EQ work tasks to be completed during the response action are summarized into the following major tasks. Specific details for each task are described below.

Task 1: Mobilization and Site Preparation

Task 2: Remove Mobile Shop asbestos containing roofing material

Task 3: Replace roof as directed

Task 4: Remove VCI from wall cavities

Task 5: Remove the interior tongue and groove wall, Clean wall cavity, encapsulate exterior walls

Task 6: Vacuum exterior perimeter of Mobile Shop

Task 7: Demobilization

Demobilization

Task 1: Mobilization and Site Preparation

- Provide a Work Plans for proposed removal actions. Provide a Site Safety Plan for the proposed site work.
- Mobilize personnel and equipment to Libby Montana.
- Establish a command post with utilities.
- Setup exclusion zones and decontamination lines.
- Setup decontamination facilities

Task 2: Remove Mobile Shop Asbestos Containing Roofing Material

- Install 6 ¾ x 10 ½ laminated beams to trusses for structural support
- Install fall restraint system
- Install roof perimeter catch system
- Construct waste disposal chute
- Remove concrete/vermiculite/asbestos layer

Task 3: Replace Roof as Directed

- Install new roof

Task 4: Remove VCI From Wall Cavities

- Establish exclusion zones.
- Install critical barriers.
- Establish negative pressure.
- Establish decontamination facilities/zone.
- Establish waste out zone.
- Remove VCI.

Task 5A: Remove the Interior Tongue and Groove Wall

- Remove interior tongue and groove wall
- Clean interior wall, ceiling, and roof structural supports.
- Encapsulate interior wall

Task5B: In-Situ Encapsulation of Wall

Task 6: Vacuum Exterior Perimeter of Mobile Shop

- Vacuum exterior perimeter of Mobile Shop in areas adjacent to where abatement activities were performed.

Task 7: Demobilization

- Decontaminate site equipment.
- Demobilize personnel and equipment from the site upon completion of site work.
- Vacuum exterior perimeter of Mobile Shop in areas adjacent to where abatement activities were performed.

Other tasks not identified in the work plan may be assigned by the FOSC, and the SSP will be amended as required. If more information becomes available concerning the hazards of operations to be undertaken at the site, the requirements of the SSP may be modified by the SSO to accommodate for additional site hazard information.

3.2 Task Specific Hazards and Controls

Task-specific hazards and controls are to be addressed at daily safety meetings as each task is performed. The site work plan should be referenced for further details for each task. Each Task-Specific Safety Assessment is designed to develop awareness to the specific chemical and physical hazards for each task. It would be impractical to repeat in complete detail each control measure and SOP for each job task. Sources and hazards will be addressed for each job task with reference made to applicable control measures in Sections 3.2, 3.3 and SOPs. The tables in Section 3.2 and 3.3 should be posted in the break area and command post. When the Task-Specific Safety Assessments are discussed, additional hazards may need to be addressed.

TASKS 1 & 7: MOBILIZATION, SITE PREPARATION AND DEMOBILIZATION

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Mobilization, Site Preparation and Demobilization. Prepare site for removal action.			
PERSONAL PROTECTIVE EQUIPMENT: Level D, Modified Level D			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
Muscle strain	Lifting heavy equipment and bending	Use proper lifting techniques. Use mechanical devices for handling materials greater than 60 pounds when possible. Use buddy system.	Table 3-3
Slip, trip, and fall	Debris and oily/wet surfaces	Use caution, use buddy system, flag or mark hazards, good housekeeping.	Att. F
Chemical exposure	Contaminated soils	Limit set up operations to only "clean" areas. Perform air monitoring to assure proper PPE is utilized (may upgrade to Level C).	Tables 3-1 and 7-1
Biological hazards	Snakes, ticks, vermin, etc.	Hazard recognition training, use buddy system, use caution, avoid vermin and areas where they may exist.	Sec. 3.3
Electrocution	Energized utilities	Use qualified electrician during site set up, properly ground hand tools, GFCI on electrical lines which are not a part of permanent wiring.	Sec. 3.3
Traffic control/struck by vehicle	Adjacent roads and site traffic	Barricade work areas to deter traffic from personnel. If work is to be performed near traffic area, Utilize traffic spotter during loading and unloading equipment.	Att. M
Heat stress	Weather conditions, physical activity, and wet clothing	Take breaks as necessary when wearing Tyveks. Use buddy system. Maintain dry clothing inventory. Monitor weather forecasts and dress appropriately. Provide sufficient drinking water. SSO monitoring of workers.	Sec. 7.4, Att. I

TASK 2: REMOVE ASBESTOS CONTAMINATED MATERIAL FROM ROOF

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Use equipment to remove concrete roofing material.			
PERSONAL PROTECTIVE EQUIPMENT: Level C, Modified Level C			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
Slip, trip, and fall	Debris, slick surfaces	Use caution while walking. Maintain a clear waste handling area. Maintain good housekeeping. Clean-up spills as soon as they occur.	Att. F
Chemical exposure	Contaminated materials	Wear appropriate PPE at all times.	Sec. 5.0, 8.0
Collision, crush trauma, struck by equipment	Automobiles, heavy equipment (fork lifts)	Use flaggers and traffic barricades to control public traffic. Make eye contact with heavy equipment operators and vice versa; do not pass under overhead loads. Keep unnecessary personnel away. Use backup alarms on equipment. Use a spotter as necessary. Delineate work area with physical barrier.	Att. G, Att. H, Att. J, Att. M
Dust	Contaminated roofing materials	Wear appropriate PPE at all times. Use a water truck to keep soils wet and to control dust levels. Monitor airborne asbestos levels with a portable air monitoring instrument.	Sec. 5.0, 8.0
Confined Space	na	Before personnel are allowed to enter work space, evaluate to determine whether or not it is a Permit-Required Confined Space. Fallow all appropriate confined space regulations and protocols. Use Buddy System.	Sec. 13, Att K
Fire	Sparks from tools in presence of flammable liquids/vapors	Use non-spark tools; use remote opening procedures if necessary. Eliminate sources of ignition from the work area. Prohibit smoking. Provide ABC fire extinguishers in all work areas, flammable storage areas and generator and compressor locations.	Sec. 3.3, Att. N

TASK 2: REMOVE ASBESTOS CONTAMINATED MATERIAL FROM ROOF

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Use equipment to remove concrete roofing material.			
PERSONAL PROTECTIVE EQUIPMENT: Level C, Modified Level C			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
		Store flammable liquids in well-ventilated areas. Post "NO SMOKING" signs. Store all compressed gas cylinders upright and put caps in place when not in use. Separate flammables and oxidizers by 20 feet.	
Heat stress	Weather conditions, physical activity, and wet clothing	Take breaks as necessary when wearing Tyveks. Use buddy system. Maintain dry clothing inventory. Monitor weather forecasts and dress appropriately. Provide sufficient drinking water. SSO monitoring of workers.	Sec. 7.4, Att. I

TASK 3: REPLACE ROOF

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Install new roof			
PERSONAL PROTECTIVE EQUIPMENT: Level D			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
Slip, trip, and fall	Debris, tanks, drums, slick surfaces	Use caution while walking. Maintain a clear waste handling area. Maintain good housekeeping. Clean-up spills as soon as they occur.	Att. F
Collision, crush trauma, struck by equipment	Automobiles, heavy equipment (fork lifts)	Make eye contact with heavy equipment operators and vice versa; do not pass under overhead loads. Keep unnecessary personnel away. Use backup alarms on equipment. Use a spotter as necessary. Delineate work area with physical barrier.	Att. G, Att. H, Att. J, Att. M
Dust	Soil	Use a water truck to keep soils wet and to control dust levels.	Sec. 8.0

TASK 3: REPLACE ROOF

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Install new roof			
PERSONAL PROTECTIVE EQUIPMENT: Level D			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
Fire	Sparks from tools in presence of flammable liquids/vapors	Use non-spark tools; use remote opening procedures if necessary. Eliminate sources of ignition from the work area. Prohibit smoking. Provide ABC fire extinguishers in all work areas, flammable storage areas and generator and compressor locations. Store flammable liquids in well-ventilated areas. Post "NO SMOKING" signs. Store all compressed gas cylinders upright and put caps in place when not in use. Separate flammables and oxidizers by 20 feet.	Sec. 3.3, Att. N
Heat stress	Weather conditions, physical activity, and wet clothing	Take breaks as necessary when wearing Tyveks. Use buddy system. Maintain dry clothing inventory. Monitor weather forecasts and dress appropriately. Provide sufficient drinking water. SSO monitoring of workers.	Sec. 7.4, Att. I

TASKS 4, 5, &6: REMOVE ASBESTOS CONTAMINATED MATERIAL FROM WALLS, TOUNGE AND GROOVE WALLS; CLEAN AND ENCAPSULATE WALLS, VACUUM BUILDING EXTERIOR

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Use equipment to remove VCI, remove wall boards, clean and encapsulate walls, vacuum exterior			
PERSONAL PROTECTIVE EQUIPMENT: Level C, Modified Level C			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
Slip, trip, and fall	Debris, slick surfaces	Use caution while walking. Maintain a clear waste handling area. Maintain good housekeeping. Clean-up spills as	Att. F

TASKS 4, 5, &6: REMOVE ASBESTOS CONTAMINATED MATERIAL FROM WALLS, TOUNGE AND GROOVE WALLS; CLEAN AND ENCAPSULATE WALLS, VACUUM BUILDING EXTERIOR

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Use equipment to remove VCI, remove wall boards, clean and encapsulate walls, vacuum exterior			
PERSONAL PROTECTIVE EQUIPMENT: Level C, Modified Level C			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
		soon as they occur.	
Chemical exposure	Contaminatedmaterials	Wear appropriate PPE at all times.	Sec. 5.0, 8.0
Collision, crush trauma, struck by equipment	Automobiles, heavy equipment (fork lifts)	Use flaggers and traffic barricades to control public traffic. Make eye contact with heavy equipment operators and vice versa; do not pass under overhead loads. Keep unnecessary personnel away. Use backup alarms on equipment. Use a spotter as necessary. Delineate work area with physical barrier.	Att. G, Att. H, Att. J, Att. M
Dust	Contaminated materials	Wear appropriate PPE at all times. Use a water truck to keep soils wet and to control dust levels. Monitor airborne asbestos levels with a portable air monitoring instrument.	Sec. 5.0, 8.0
Confined Space	na	Before personnel are allowed to enter work space, evaluate to determine whether or not it is a Permit-Required Confined Space. Fallow all appropriate confined space regulations and protocols. Use Buddy System.	Sec. 13, Att K
Fire	Sparks from tools in presence of flammable liquids/vapors	Use non-spark tools; use remote opening procedures if necessary. Eliminate sources of ignition from the work area. Prohibit smoking. Provide ABC fire extinguishers in all work areas, flammable storage areas and generator and compressor locations. Store flammable liquids in well-	Sec. 3.3, Att. N

TASKS 4, 5, &6: REMOVE ASBESTOS CONTAMINATED MATERIAL FROM WALLS, TOUNGE AND GROOVE WALLS; CLEAN AND ENCAPSULATE WALLS, VACUUM BUILDING EXTERIOR

TASK-SPECIFIC SAFETY ASSESSMENT

JOB TASK: Use equipment to remove VCI, remove wall boards, clean and encapsulate walls, vacuum exterior			
PERSONAL PROTECTIVE EQUIPMENT: Level C, Modified Level C			
HAZARD	**SOURCES**	**CONTROL MEASURES**	**REF.**
		ventilated areas. Post "NO SMOKING" signs. Store all compressed gas cylinders upright and put caps in place when not in use. Separate flammables and oxidizers by 20 feet.	
Heat stress	Weather conditions, physical activity, and wet clothing	Take breaks as necessary when wearing Tyveks. Use buddy system. Maintain dry clothing inventory. Monitor weather forecasts and dress appropriately. Provide sufficient drinking water. SSO monitoring of workers.	Sec. 7.4, Att. I

3.2 Chemical Hazards

This list of chemical hazards should not be taken as a complete assessment of the hazards posed by materials at the Stimson Mill. The known and unknown mixed chemical hazards at this site prevent a clear determination of the specific effects of discrete compounds. Therefore, personnel must be alert for symptoms of possible exposure such as unusual smells; stinging and burning eyes, nose and throat; skin irritation; as well as feeling extremely well, depressed, sleepy or tired. Symptoms must be immediately reported to the RM.

3.2.1 Primary Chemical Hazards

The primary chemical hazards expected to be present at the Stimson Mill Sites include:

Asbestos

The contaminant of concern for this project is asbestos. Asbestos is a generic term for a group of six naturally occurring, fibrous silicate minerals that have been widely used in commercial products. Asbestos minerals fall into two groups of classes: serpentine asbestos and amphibole asbestos. Serpentine asbestos, which includes the mineral chrysotile, a magnesium silicate mineral, possesses relatively long and flexible crystalline fibers that are capable of being woven.

Amphibole asbestos, which includes the minerals amosite, crocidolite, tremolite, anthophyllite, and actinolite, form crystalline fibers that are substantially more brittle than serpentine asbestos. Asbestos is of potential health concern because chronic inhalation exposure to excessive levels of asbestos fibers suspended in air can result in lung disease such as asbestosis (a non-cancer effect) and lung cancer and mesothelioma (cancer effects). Tremolite-actinolite asbestos is known to be present at the site. Hazards associated with breathing airborne asbestos fibers are well documented. Hazards include asbestosis, a disease that makes breathing progressively more difficult due to scarring of the lung tissue and can be fatal. Asbestos fibers also cause lung cancer and mesothelioma. Mesothelioma is a rare cancer of the lining of the lungs and chest cavity that is always fatal and can almost always be associated with asbestos exposures. Asbestos has also been associated with increases in digestive cancers from accidental ingestion. The primary concern is breathing airborne asbestos fibers. All site personnel will be protected from asbestos exposure through work practices, PPE and engineering controls. These work practices include wetting the soil during excavation, covering trucks during hauling, and considering wind direction during work activities. Personal protective equipment will be used by site personnel. Personal protective equipment will include the use of NIOSH-approved respirators with high-efficiency cartridges and Tyvek disposable clothing. All site personnel will complete personal decontamination on a daily basis. The project includes excavation and transport of large volumes of soil. Safety hazards associated with general construction activities – slips, trips, falls, pinch points, collisions - present a more consistent and potentially greater risk than asbestos exposure.

A summary of the health effects and the OSHA permissible exposure limits (PELs) for the primary chemical hazards likely to be encountered during operations at the site are summarized in Table 3-1. Applicable Material Safety Data Sheets (MSDSs) and supplemental chemical hazard information are provided in Attachment C.

3.2.2 Secondary Chemical Hazards

Secondary chemical hazards are typically introduced and/or generated by site activities, but are not considered to be primary chemical hazards for the site. For the Stimson Mill Sites, the secondary chemical hazards are expected to include:

Diesel (heavy equipment operation)
Gasoline (automobiles)
Note: Gasoline and Diesel contains Benzene and Ethylbenzene
Carbon Monoxide (heavy equipment operation)

A summary of the health effects and the OSHA permissible exposure limits (PELs) for the secondary chemical hazards likely to be encountered during operations at the site are summarized in Table 3-2. Applicable Material Safety Data Sheets (MSDSs) and supplemental chemical hazard information are provided in Attachment C.

TABLE 3-1

PRIMARY CHEMICAL HAZARD INFORMATION

COMPOUND	OSHA EXPOSURE LIMITS	EXPOSURE ROUTE	HEALTH EFFECTS
Asbestos Actubilite, Amosite, Anthophollite, Chrysotile, Crocidolite, Tremolite	PEL = Lowest Feasible Concentration (know carcinogen) See Appendix A in the NIOSH Guide Book	Inhalation	Lungs, Finger Clubbing, Interstitial Fibrosis, Respiratory System (lung cancer)

TABLE 3-2
SECONDARY CHEMICAL HAZARD INFORMATION

COMPOUND	OSHA EXPOSURE LIMITS	EXPOSURE ROUTE	HEALTH EFFECTS
Gasoline	None	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, mucous membrane; dermatitis; headache, lassitude (weakness, exhaustion), blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis (aspiration liquid); possible liver, kidney damage; [potential carcinogen]
Diesel (as diesel exhaust)	None	Inhalation, skin and/or eye contact	Eye irritation, pulmonary function changes; [potential occupational carcinogen]
Benzene	OSHA PEL = 1 ppm OSHA STEL = 5 ppm NIOSH REL = 0.1 ppm NIOSH STEL = 1 ppm	Inhalation, skin absorption, ingestion, skin and/or eye contact.	Eye irritant; skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen].
Ethylbenzene	PEL = 100 ppm OSHA STEL = 100 ppm NIOSH REL = 100 ppm NIOSH STEL = 25 ppm	Inhalation, skin absorption, ingestion, skin and/or eye contact	Eye irritant, nose, respiratory system; headache, lassitude (weakness, exhaustion), dizziness, confusion, malaise (vague feeling of discomfort), drowsiness, unsteady gait; narcosis; defatting dermatitis; possible liver injury; reproductive effects

Carbon Monoxide	OSHA PEL = 50 ppm NIOSH REL = 35 ppm NIOSH C = 200 ppm	Inhalation, skin and/or eye contact (liquid).	Headache, tachypnea, nausea, lassitude (weakness, exhaustion), dizziness, confusion, hallucinations; cyanosis; depressed S-T segment of electrocardiogram, angina, syncope.

LEGEND:

PEL:	OSHA Permissible Exposure Limit (8-hr TWA)
C:	OSHA Ceiling Limit
TWA:	Time Weighted Average
mg/m^3:	milligrams per cubic meter of air
ppm:	parts per million
STEL:	OSHA Short Term Exposure Limit (15 min TWA)
ACGIH:	American Conference of Governmental Industrial Hygienists
TLV:	Threshold Limitation Value
NIOSH:	National Institute for Occupational Safety and Health
REL:	Recommended Exposure Limit (NIOSH), based on a 10-hour TWA
TWA:	Time Weighted Average
C:	OSHA ceiling limit

3.2.3 Dust Hazards

A potential hazard exists from the generation of contaminated dust during work activities. Dust suppression/control measures will be implemented to minimize generation of fugitive dusts during work operations.

Generation of dust may occur at the site during the following activities:

- Movement of heavy equipment on unpaved surfaces
- Disturbance of the ground surface areas
- Strong wind gusts
- Removal of building materials

Dust generating activities will require the following dust control measures:

- Pump sprayers to wet down building materials to be removed
- Pump sprayer to wet down VCI/ACM to be removed

3.3 Physical Hazards

The risk of exposure to physical hazards will be from noise, contact with moving parts and struck by equipment. Table 3-3 provides a general physical hazard analysis.

Physical Hazards

The primary physical hazards to be encountered during site activities indude:

- Fire/Explosion
- Excavation Safety
- Heavy Equipment Operations
- Electrical Equipment
- Noise Exposure
- Heat Stress
- Fall Hazards

Miscellaneous Physical Hazards

Miscellaneous physical hazards and safety procedures to be followed will be discussed with personnel in daily safety meetings and may include discussion of the following topics:

- Material handling
- Safe lifting procedures
- Machinery operation
- Elevated work surfaces
- Housekeeping
- Uneven terrain
- Slippery work surfaces
- Sharp objects
- Tripping hazards

TABLE 3-3 GENERAL PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS

HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
Electrical	1. Locate and mark existing energized lines. 2. De-energize lines if necessary to perform work safely. 3. All electrical circuits will be grounded. 4. All 120-volt single phase, which are	1. Use a ground fault interrupter (GFI). 2. Use grounded tools. 3. First aid on site.

TABLE 3-3 GENERAL PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS

HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
	not a part of the permanent wiring, will have a ground-fault interrupter in place. 5. Temporary wiring will be guarded, buried or isolated by elevation to prevent accidental contact by personnel or equipment. 6. Evaluate potential for high moisture/standing water areas and define special electrical wiring needs-typically requirement for low voltage lighting systems.	
Ergonomic	1. All operations evaluated for ergonomic impact. 2. Procedures written to define limits of lifting, pulling, etc. 3. Procedures to define how personnel will utilize proper ergonomic concepts and utilize mechanical material handling equipment. 4. Necessary mechanical material handling equipment specified and ordered for project.	1. Proper body mechanics techniques stressed and enforced on a daily basis. 2. Mechanical handling equipment maintained and utilized. 3. Proper body mechanics stressed in scheduled safety meetings. 4. Injuries reported and medically treated if in doubt about severity. 5. Operations changed as necessary based on injury experience or potential.
Existing Site Topography	1. Survey site prior to layout. Identify areas unsafe for personnel or equipment due to physical conditions. 2. Identify/locate existing utilities. 3. Determine impact of site operations on surrounding properties, communities, etc. 4. Identify mechanized equipment routes both on site and onto and off the site. 5. Layout site into exclusion and contamination reduction zones based on initial site evaluation.	1. Awareness to work environment - regular inspection/audits to identify changing conditions. 2. Shut down operations when unknown conditions encountered. 3. Utilize physical barriers, signs and markings.

TABLE 3-3 GENERAL PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS

HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
Fires & Explosions	1. Evaluate all operations for fire and explosion potential. 2. Define specific procedures for unique operations presenting unusual hazard such as flammable tank demolition. 3. Ensure that properly trained personnel and specialized equipment is available. 4. Define requirements for handling and storage of flammable liquids on site need for hot work permits and procedures to follow in the event of fire or explosion. 5. Define the type and quantity of fire suppression equipment needed on site. 6. Coordinate which local fire fighting agencies to discuss unique fire hazards, hazardous materials, etc. 7. Ensure site operations comply with 29CFR 1910.157G.	1. Inspect fire suppression equipment on a regular basis. 2. Store flammables away from oxidizers and corrosives. 3. Utilize Hot Work Permit for all hot work on site. 4. Follow any site-specific procedures regarding work around flammables. 5. Review and practice contingency plans. Discuss on regular basis at scheduled safety meetings.
Flammable Vapor and Gases	1. Evaluate site to determine sources of likely flammable gas or vapor generation. 2. Develop specific procedures to be followed in the event of exposure to flammables. 3. Specify specialized equipment needs for inerting flammable atmospheres, ventilating spaces and monitoring flammable vapor concentrations. 4. Define requirements for intrinsically safe equipment. 5. Develop contingency plan to follow in the event of fire or explosion.	1. Calibrated monitoring equipment available and utilized by trained personnel whenever working where flammable gas or vapor is present. 2. Monitoring performed at regular frequency and in all areas where vapor could generate or pool. 3. Equipment and operations shut down when threshold levels are exceeded. 4. Contingency plans reviewed regularly by all involved personnel. 5. Work areas are

TABLE 3-3 GENERAL PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS

HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
		carefully inspected to look for possible ignition sources. Sources are removed. 6. Operations shut down if specific task procedures can't be followed to the letter.
Heat Stress	1. Anticipate possible elevated temperatures (summer months). 2. Awareness to stress placed on body by specific PPE. 3. Awareness to levels of heat stress symptoms.	1. Proper work/rest schedule and monitoring. 2. Drink plenty of fluids. 3. Buddy system/awareness. 4. First aid on site. 5. Medical care if symptoms persist.
Heavy Equipment Operations	1. Define equipment routes and traffic patterns for site. 2. Insure that operators are properly trained on equipment operation for all equipment required on project. 3. Define safety equipment requirements, including back up alarm and roll over, for all equipment on site. 4. Define equipment routes and traffic patterns for site. 5. Implement SOP of requiring operators to perform safety inspections on equipment on a daily basis in accordance with manufacturer requirements. 6. Evaluate project requirements to ensure that equipment of adequate capacity is specified.	1. Equipment inspected as required. Equipment repaired or taken out of service. 2. Ground spotters are assigned to work with equipment operators. Utilize standard hand signals and communication protocols. 3. Personnel wear the proper PPE; utilize hearing protection, gloves for handling rigging, etc. 4. Equipment safety procedures discussed at daily scheduled safety meetings. 5. Do not exceed lifting capacities or load limits of equipment in question.

TABLE 3-3 GENERAL PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS

HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
		6. Personnel follow basic SOP's that prohibit passengers on equipment.
Illumination	1. Evaluate all operations and work areas to determine lighting requirements. 2. Specify specialized lighting requirements including explosion proof, intrinsically safe, lighting needs. 3. Determine if nighttime outdoor operations are necessary. Evaluate tasks to be performed and number of light plants necessary to allow operations. 4. Ascertain if outdoor lighting from nighttime operations will have an impact on surrounding communities.	1. Inspect specialized equipment and discard or replace as needed. 2. Add additional lighting to areas with lighting deficiencies. 3. Inspect drop cords and portable lights on regular basis. Replace or repair as necessary.
Noise	1. Local community noise standards examined. 2. Expected loud operations evaluated to determine compliance with community standards. 3. Loud operations scheduled for approved time periods. 4. Noise level standards established for equipment brought onto site. 5. Hearing protection requirements defined for personnel expected to have excessive exposures.	1. Personnel receive annual audiogram. 2. Personnel required to wear hearing protection; use baffles and mufflers. 3. Routine noise level monitoring and dosimetry performed. 4. Defective equipment repaired as needed. 5. Ongoing hearing conservation education promoted at scheduled safety meetings. 6. Medical evaluation following noise (impact) exposure if symptoms present themselves.
Personal Injuries	1. Site operations will be evaluated for exposures with serious injury potential	1. Personnel will wear required PPE.

TABLE 3-3 GENERAL PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS

HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
	such as falling objects, pinch points, flying objects, falls from elevated surfaces, etc. 2. A written Fall Prevention Program will be developed if workers will be required to work at heights greater than 10 feet from unguarded work locations. 3. PPE requirements will be based on potential for injury.	2. Specialized equipment such as rope grabs, winches, etc. will be inspected prior to each use. Defective equipment will be immediately replaced. 3. All injury and near miss incidents will be reported to the SSO. 4. First aid/CPR-trained person on site at all times. 5. All injuries will be treated on site with advanced medical treatment being sought if doubt about severity.
Small Equipment Usage	1. Site operations evaluated to determine need for specialized intrinsically safe, explosion-proof and UL approved equipment and instruments. 2. Implement requirement for G.F.I., double insulated tool usage, or assured grounding program in all outdoor operations, will be utilized. 3. Specify equipment needs to ensure that equipment used only for the purpose for which it is designed and to prevent abuse or misuse of the equipment. 4. Specify requirements for the inspections and maintenance of specialized equipment. 5. Specify that all equipment utilized on the project meets all OSHA requirements.	1. First aid on site. 2. Transport for medical care if necessary.

TABLE 3-3 GENERAL PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS

HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
Wildlife	1. Inspect work environment where tasks are being performed. 2. Awareness to bites. 3. Dogs, animals, poison ivy, etc.	1. First aid on site. 2. Seek medical attention if symptoms-signs persist.
Weather Conditions	1. Evaluate prevailing weather conditions for the site. 2. Contingency plans developed for likely severe weather conditions such as tornado, and extreme thunderstorm. 3. Provide for daily weather forecast service in extreme weather areas. 4. Plan to weatherize safety systems, such as showers and eyewashes, which would be impacted by extreme cold weather. 5. Order necessary specialized cold weather clothing. 6. Grounding and bonding requirements defined for thunderstorm areas. 7. Sheltered air-conditioned break areas provided for extreme hot and cold weather zones.	1. Employees trained in contingency plan for severe weather conditions. 2. Emergency water sources inspected regularly in cold areas. 3. Weather service contacted regularly during storm conditions. 4. Supervisory personnel cease operations during extreme storm conditions (i.e., first scenes of thunderstorms). Personnel evacuate to safe assembly area.

4.0 PERSONNEL TRAINING

4.1 Initial Training

All training complies with 29CFR 1910.120(e).

a. 40-Hour Training

All field employees receive forty hours of classroom training on safe work practices and hazardous waste sites.

b. Supervisor/Managers

Manager and Supervisors receive eight hours of training on safe management of hazardous waste sites.

The following individuals are Site Supervisors: Richard Singer

4.2 Site Specific Training

a. All assigned personnel will receive site-specific training on routes of exposure and adverse health effects associated with the chemicals listed in Section 3.2 (including MSDSs in Attachment C).

b. At least one member of each work crew shall have training in the use of portable fire extinguishers in accordance with 29CFR 1910.157(g).

c. In accordance with 29CFR 1910.120, all personnel newly assigned to hazardous waste work will receive 3 days of on the job training by an experienced supervisor.

d. Each person entering the site shall sign a statement attesting to the fact that they have read and understand the Site Safety Plan. (See SSP Acknowledgement Form)

4.3 Annual Refresher

All field employees receive eight hours of refresher training on the above topics within the anniversary date of their initial 40-hour class.

4.4 First Aid/CPR

At least one individual on site will maintain valid and current CPR and First Aid Certification. Treatment will be limited to Good Samaritan/minor first aid. All traumatic/major first aid and cardiac problems will be referred to medical facilities.

4.5 Subcontractor Requirements

All subcontractors entering the Contamination Reduction Zone and Exclusion Zone will have adequate training satisfying 29 CFR 1910.120(e).

5.0 PERSONAL PROTECTIVE EQUIPMENT

The following is a brief description of the personal protective equipment (PPE), which may be required during various phases of the project. The U.S. EPA terminology for protective equipment will be used: Levels A, B, C and D.

Respiratory protective equipment shall be NIOSH-approved and use shall conform to OSHA 29 CFR 1910.134 Requirements. Each employer shall maintain a written respiratory protection program detailing selection, use, cleaning, maintenance and storage of respiratory protective equipment. The written Respiratory Protection Program will be maintained at the local and regional offices.

5.1 PPE Requirements

Task 1:Mobilization and Site Preparation .....Level D

Level D for mobilization/site preparation activities where contact with contaminants is unlikely. .

Task 2: Remove Mobile Shop Asbestos Containing Roofing Material..... Level C

Level C for excavation activities where contact with contaminants is likely and dust control will be done to minimize airborne particulates.

Task 3: Replace Roof as Directed..... Level D

Level D for any other site activities where contact with contaminants is unlikely due to previous removal activities.

Task 4: Remove VCI From Wall Cavities ..... Level C

Level C for excavation activities where contact with contaminants is likely and dust control will be done to minimize airborne particulates.

Task 5: Remove the Interior Tongue and Groove Wall .....Level C

Level C for excavation activities where contact with contaminants is likely and dust control will be done to minimize airborne particulates.

Task 6: Vacuum Exterior Perimeter of Mobile Shop.....Level C

Level C for excavation activities where contact with contaminants is likely and dust control will be done to minimize airborne particulates.

Task 7:Demobilization.....Level D

Once contaminated materials are excavated and disposed, Level D PPE is anticipated

5.2 Level A

Level A protection shall be used when:

- An extremely hazardous substance requires the highest level of protection for skin, eyes and the respiratory system;
- Substances with a high degree of hazard to the skin are known or suspected;
- Chemical concentrations are known to be above IDLH levels; or,
- Biological hazards requiring Level A are known or suspected.

Level A protective equipment use is not anticipated during planned project activities.

5.3 Level B

Level B protection shall be used when:

- The substance(s) has been identified and requires a high level of respiratory protection but less skin protection;
- Concentrations of chemicals in the air are IDLH or above the maximum use limit of an APR with full-face mask;
- Oxygen deficient or potentially oxygen deficient atmospheres (<19.5%) are possible; and/or,
- Confined space entry may require Level B.
- Incomplete identification of gases and vapors, but not suspected to be harmful to skin or skin absorbable.

Level B protective equipment use is not anticipated during planned project activities.

5.4 Level C

Level C protection shall be used when:

- The same level of skin protection as Level B, but a lower level of respiratory protection is required;
- The types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove contaminants; or,
- The substance has adequate warning properties and all criteria for the use of APR respirators have been met.

Level C protective equipment at a minimum shall consist of the same equipment as Level B

except the SAR will be substituted with a full face Air Purifying Respirator (APR) with HEPA cartridges. Powered air respirators may be required for some tasks.

Respiratory Protection:	Air Purifying Respirator (APR) or Powered Air Purifying Respirator (PAPR) with HEPA cartridges.
Chemical Resistant / Protective Coveralls:	Tyvek™
Inner Gloves	Latex or Nitrile;
Outer Chemical Gloves	Viton or PVA or Nitrile;
Outer Work Gloves	Cotton or leather;
Safety Boots/rubber boots	Steel-toe / Steel Shank;
Boot Covers (booties) or Rubber Overboots	Robars;
Hard Hat	Yes
Other:	Hearing protection as required for noisy operations.

5.5 Level D

Level D protection shall be used when:

- The atmosphere contains no known respiratory hazard; and,
- Work functions preclude splashes, immersion or the potential for unexpected inhalation of, or contact with, hazardous concentrations of harmful chemicals.

Level D protection equipment at a minimum shall consist of:

Rain Suit	As necessary;
Safety Shoes/Boots (type)	Steel-toe/Steel Shank;
Boot Covers (booties)	Latex or Robars;
Work Gloves	Cotton;
Hard Hat	Yes;
Face Shield	As necessary;
Safety Glasses	Yes
Safety Vest	Yes

Modifications: Hearing protection as required by noisy operations. Polytyvek™ coveralls and Viton, Nitrile or PVA gloves when working and the possibility of a splash exists.

Specific operating procedures for PPE and Respiratory Protection are provided in Attachment D.

5.6 Decisions to Upgrade/Downgrade PPE

a. All decisions to downgrade from Level B to C or C to D must be accompanied by air monitoring results. The ERRS Safety Managers must be advised of on-site decisions to downgrade. All decisions must be documented with an Amendment to the SSP.

b. The following conditions will necessitate reevaluation of PPE use.

1. Commencement of a new work activity not previously identified
2. Change of job tasks during a work phase
3. Change of season/weather
4. Contaminants other than those identified in Safety Plan
5. Change in ambient levels of contaminants
6. Change in work that affects degree of chemical contact

c. Action Levels (See Section 7.0)

5.7 PPE Donning Procedures for Personnel working in Areas with VCI and or ACM

Personnel working in areas of known or suspected VCI and/or ACM will be required to don PPE in the decontamination trailer as follows:

1. Enter clean side of the trailer.
2. Remove all street cloths. Don nylon undergarments if desired.
3. Don respirator
4. Don PPE.
5. Move to through the shower room to the dirty side of the trailer.
6. Exit to work zone.

6.0 MEDICAL SURVEILLANCE

6.1 Pre-Employment Physical

a. Pre-employment and periodic update medical examinations are required for persons working at hazardous waste sites.
b. All physicals must be completed and documented prior to assignment to the site.
c. All physical exams will be conducted following parameters established by the respective employee's Corporate Physicians.
d. EQ and all permanent team subcontractors must adhere to the Drug Free Workplace Act of 1988.

6.2 Site Specific Physical Examination

a. No site-specific physical examination is required for planned project activities.

b. A current Fitness for Duty statement will be kept on site for all personnel.

6.3 Annual Physical Exam

A medical examination must have been completed within a 12-month period prior to on-site activity and repeated annually.

6.4 Accidental/Suspected Exposure Physical

a. following any accidental or suspected uncontrolled exposure to site contaminants, personnel should be scheduled for a special physical examination.

b. The physical examination will be specific for the contaminants and the associated target organs or physiological system.

c. Exposure to blood/body fluids requires adherence to 29 CFR1910.1030 (Blood borne Pathogens).

d. Questions regarding the type of physical can be directed to the employer's Director of Health and Safety or their Corporate Physician. See Section 11.2 for their respective phone numbers.

6.5 Contractor Physical Examination Requirements

All subcontractors entering the Contamination Reduction Zone or Exclusion Zone will have adequate medical surveillance satisfying 29CFR 1910.120(f).

7.0 AIR MONITORING AND ACTION LEVELS

According to 29 CFR 1910.120 (h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection needed on-site.

7.1 Routine Air Monitoring Requirements

- Upon initial entry to rule out IDLH conditions;
- When the possibility of an IDLH condition or flammable atmosphere has developed;
- When work begins on a different portion of the site;
- Contaminants other than those previously identified are being handled;
- A different type of operation is initiated;
- Employees are handling leaking drums or containers or working in areas with obvious liquid contamination; and,
- During confined workspace.

Air monitoring will consist at a minimum of the criteria listed below. All air monitoring data will be documented and submitted to the FOSC and available in the command post site files for review by all interested persons. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications. Calibration and maintenance performed will be entered in the site log and/or instrument logbook.

7.2 Site Specific Air Monitoring Requirements

Monitoring will be completed to determine personnel exposures to chemical contaminants and physical agents during various project activities. The SSO and/or other responsible party (*e.g.*, EPA designated contractor) will be responsible for completing monitoring activities during field operations where there is potential exposure to airborne dust and other airborne contaminants above PELs/TLVs. The following table summarizes site air requirements:

TABLE 7-1
AIR MONITORING SUMMARY

INSTRUMENT	COMPOUNDS TO DETECT	FREQUENCY	COMMENTS/ ACTION LEVEL
Combustible Gas Indicator (CGI)	Explosive/ Flammable Atmospheres	As needed, continuous indoors	<=10% proceed with caution; ≥10% evacuate area and re-evaluate
Oxygen Meter	Oxygen	Confined space work, if encountered	≤ 19.5% or ≥ 23.5% oxygen, evacuate area and re-evaluate
PID/FID	Organic Vapors and Gases	Periodic during drum handling, tank pumping and soil excavation	Unidentified contaminants* ≤ Background units - Level D. > Background - 5 units - Level C. > 5 units - Level B.
Other: MiniRam	Asbestos/Dust particulates Respirable Asbestos/Dust	During removal operations if determined necessary.	> 5.0 mg/m^3 Level "C" PPE > 0.5 mg/m^3 Resp dust Level "C" PPE

* The reading must be sustained for one (1) minute in the breathing zone.

7.3 Noise Monitoring

Operation of equipment and machinery at the site may generate excessive noise levels and will require use of hearing protection (e.g., foam ear plugs) by site personnel whenever noise exposures exceed 85 decibels on the A-weighted scale (dBA). Noise exposures in excess of 85 dBA will be assumed to be present whenever voices must be raised to be heard in normal conversation at three feet apart and whenever working in immediate areas of operating heavy equipment, generators, compressors and similar equipment. Should it become necessary to determine if hearing protection is required for certain operations, a type II sound level meter/audio dosimeter will be used to determine noise exposure levels.

7.4 Heat/Cold Stress Monitoring

Heat stress monitoring for the IVA site will begin when temperatures exceed 80°F. Heat stress monitoring for personnel working in permeable clothing, such as cotton or synthetic work clothes, will be conducted in accordance with The American Conference of Governmental Industrial Hygienists' (ACGIH) Threshold Limit Values for heat stress. The SSO will be responsible for verifying the work/rest schedules; calculating WBGT using a black globe

thermometer, a natural wet bulb thermometer, and a dry bulb thermometer (or WBGT monitor); notifying workers of results; and documenting results.

The SSO will also monitor workers wearing impermeable or semi-impermeable clothing for physiological results by the following checks:

- Heart rate. Count the radial pulse during a 30-second period as early as possible in the rest period.

  If the heart rate exceeds 110 beats per minute at the beginning of the rest period, shorten the next work cycle by one-third and keep the rest period the same. If the heart rate still exceeds 110 beats per minute at the next rest period, shorten the following work cycle by one-third.

- Oral temperature. Use a clinical thermometer (3 minutes under the tongue) or similar device to measure the oral temperature at the end of the work period (before drinking).

  If oral temperature exceeds 99.6°F (37.6°C), shorten the next work cycle by one-third without changing the rest period.

  If oral temperature still exceeds 99.6°F (37.6°C) at the beginning of the next rest period, shorten the following work cycle by one-third.

  Do not permit a worker to wear a semi permeable or impermeable garment when his/her oral temperature exceeds 100.6°F (38.1°C).

- Body water loss (if possible). Measure weight on a scale accurate to $\pm$ 0.25 lb at the beginning and end of each workday to see if enough fluids are being taken to prevent dehydration. Weights should be taken while the employee wears similar clothing or, ideally, is nude. *The body water loss should not exceed 1.5 percent total body weight loss in a workday.*

Initially, the frequency of physiological monitoring depends on the air temperature adjusted for solar radiation and the level of physical work. A form is provided in Attachment Y to document physiological results.

Cold stress monitoring will be completed IAW ACGIH TLVs for cold stress. See Attachment N for cold stress monitoring procedures.

7.5 Location of Monitoring Records

Copies of monitoring records will be retained in the onsite command post during the project and the job file upon completion of the project.

8.0 SITE CONTROL AND STANDARD OPERATING PROCEDURES

8.1 Work Zones

The primary purpose for site controls is to establish the hazardous area perimeter, to reduce migration of contaminants into clean areas and to prevent access or exposure to hazardous materials by unauthorized persons. At the end of each workday, the site will be secured or guarded, to prevent unauthorized entry. Site work zones will include:

8.1.1 Support Zone

This uncontaminated Support Zone or clean zone will be the area outside the Exclusion Zone (EZ) and Contamination Reduction Zone (CRZ) and within the geographic perimeters of the site. This area is used for staging of materials, parking of vehicles, office facilities, sanitation facilities and receipt of deliveries. Personnel entering this zone may include delivery personnel, visitors, security guards, etc., who will not necessarily be permitted in the EZ. All personnel arriving in the SZ will upon arrival, report to the command post and sign the site entry/exit log. There will be one controlled entry/exit point from the clean zone to the CRZ. **The location of the SZ will be the on-site office trailer.**

8.1.2 Contamination Reduction Zone IS THERE A CRZ FOR ASBESTOS?

The Contamination Reduction Zone (CRZ) will provide a location for removal of contaminated personal protective equipment and final decontamination of personnel and equipment. All personnel and equipment should exit the Exclusion Zone via the CRZ area. A separate decontamination area will be established for heavy equipment.

The Contamination Reduction Zone is a buffer zone between contaminated and clean areas identified by caution tape. **The CRZ will be established at each Site.**

8.1.3 Exclusion Zone

The Exclusion Zone (EZ) will be the "hot-zone" or contaminated area inside the site perimeter. Entry to and exit from this zone will be made through a designated point and all personnel will be required to sign the hot zone entry/exit log located at the decontamination area. Appropriate warning signs to identify the Exclusion Zone should be posted (i.e. "DANGER - AUTHORIZED PERSONNEL ONLY", "PROTECTIVE EQUIPMENT REQUIRED BEYOND THIS POINT", etc.) When exiting from the Exclusion Zone must be accompanied by personnel and equipment decontamination as described in Section 9.0. The EZ will be identified by caution tape and signage and will include the areas of the building where hazardous waste operations are being conducted. General Safety Rules for Exclusion Zone include:

a. wear the appropriate level of PPE defined in the SSP
b. do not remove any PPE or break the integrity to pick, scratch or touch parts of your body
c. no smoking, eating or drinking

d. no horseplay
e. no matches or lighters in this zone
f. implement the communication and line of sight system

A map of the work zones for this site is provided in Attachment B.

8.2 General Field Safety Rules

- All visitors must be sent to the command post and referred to the FOSC.
- It is EPA policy to practice administrative hazard control for all site areas by restricting entrance to Exclusion Zone to essential personnel and by using operational SOPs.
- Whenever possible, avoid contact with contaminated (or potentially contaminated) surfaces. Walk around (not through) puddles and discolored surfaces. Do not kneel on the ground or set equipment on the ground. Stay away from any waste drums unless necessary. Protect equipment from contamination by bagging.
- Eating, drinking or smoking is permitted only in designated areas in the Support Zone.
- Hands and face must be thoroughly washed upon leaving the decontamination area.
- Beards or other facial hair that interfere with respirator fit will preclude admission to the EZ.
- All equipment must be decontaminated or discarded upon exit from the Exclusion Zone, as determined by the FOSC or designate.
- All personnel exiting the Exclusion Zone must go through the decontamination procedures described in Section 9.0.
- Safety Equipment described in Section 5.0 will be required for all field personnel in the Exclusion Zone.
- Personnel will only travel in vehicles where individual seats (for each occupant are provided. Seat belts will be worn as required.
- Fire extinguishers will be available on site and in all areas with increased fire danger such as the refueling area.
- A minimum of two personnel will always be on site whenever heavy equipment is operated. Only necessary personnel need to be on or around heavy equipment.
- Employees will not interfere with or tamper in any way with air monitoring equipment.

- Backhoes or other equipment with booms shall not be operated within 10 feet of any electrical conductor.

- Visitor log will be maintained at the command post or with the security guard. All personnel coming on site will sign in and out on a daily basis.

- Security will be maintained at the site by closing all gates during normal work hours. The FOSC will assume responsibility for personnel entering site. Site will be locked up in the evening and patrolled by a guard service.

- EPA FOSC will allow only those individuals authorized to enter the site. If unauthorized members of the public are found on site, contact security immediately and do not leave the individual unattended.

- Visitors are not allowed in the work areas without authorization and not without appropriate levels of PPE as determined by site safety personnel. Access to the properties is restricted to the EPA and authorized representatives. All persons must sign in at the Command Post and receive authorization to enter the site.

- Buddy System
  [1] The buddy system is mandatory at anytime that personnel are working in the Exclusion Zone, remote areas, on tanks, or when conditions present a risk to personnel.

  [2] A buddy system requires at least two trained/experienced people who work as a team and maintain at a minimum audible and/or visual contact while operating in the Exclusion Zone.

- Communication Procedures
  [1] Radios will be used for on site communications and Channel **1&2** will be the designated channel.
  [2] The crews should remain in constant radio or visual contact while on site.
  [3] The site evacuation signal will be 3 blasts on the air or vehicle horn.

9.0 DECONTAMINATION PROCEDURES

In general, everything that enters the Exclusion Zone at this site must either be decontaminated or properly discarded upon exit from the Exclusion Zone. All personnel, including any state and local officials must enter and exit the hot zone through the decontamination area. Prior to demobilization, contaminated equipment will be decontaminated and inspected by the FOSC or FOSC designate before it is moved into the clean zone. Any material that is generated by decontamination procedures will be stored in a designated area in the Exclusion Zone until disposal arrangements are made.

All personnel must be documented on the "HOT ZONE ENTRY/EXIT LOG" when entering and exiting the Exclusion Zone.

NOTE: The type of decontamination solution to be used is dependent on the type of chemical hazards. The decontamination solution for this site is soap, Alconox™, and water. Decontamination solution will be changed daily (at a minimum) and collected and stored on-site until disposal arrangements are finalized.

9.1 Procedures for Equipment Decontamination

Following decontamination and prior to exit from the hot zone, the FOSC or a designated alternate shall be responsible for insuring that the item has been sufficiently decontaminated. This inspection shall be included in the site log.

Equipment decontamination will consist of the following steps:

a) Removal of gross contamination by sweeping or scraping.
b) Hydrospraying equipment.
c) Inspecting equipment prior to removal from CRZ.

Small equipment decontamination will involve wiping equipment with alcohol wipes or other appropriate decontamination solution.

9.2 Procedure for Personnel Decontamination

This decontamination procedure applies to personnel at this site wearing Level C protection. These are the minimum acceptable requirements:

Station 1: Equipment Drop

Deposit equipment used on-site (tools, sampling devices and monitoring instruments, radios, etc.) on plastic drop cloths. These items must be decontaminated or discarded as waste prior to removal from the exclusion zone.

Station 2: Protective equipment removal

Enter Dirty side of decontamination trailer. Remove all PPE. Leave respirator and nylon undergarments on. Proceed to shower room. Shower thoroughly. Rinse respirator. Proceed to

clean room to and dress in street cloths.

Personnel must "shower out" every time they leave the work area.

Eating, drinking, chewing gum/tobacco, smoking, or any practice that increases the probability of hand to mouth transfer and/or ingestion of materials is prohibited in any areas where the possibility of contamination exists and is permitted only in the designated break area.

Personnel will not wear or bring dirty/decontaminated clothing into the break areas.

9.3 Emergency Decontamination Steps

Move the victim only if it is safe to do so. Decontaminate the victim only to the extent as to allow safe removal of the victim without further injury. Any blood contaminated material or body fluid will be bagged, labeled Biohazard and accompany the individual to the hospital.

9.4 Required Decontamination Equipment

Tables, chairs, trashcans, scrub brushes, buckets, brooms, scrapers and cleaning supplies.

9.5 Disposition of Decontamination Wastes

All equipment and solvents used for decontamination shall be decontaminated or disposed of with the established waste streams. Commercial laundries or cleaning establishments that decontaminate or are used to launder contaminated clothing shall be informed of the presence and potentially harmful effects of the contaminants. Less than 50# per month of biohazard waste may be disposed with routine waste.

Shower water will be removed routinely and applied to contaminated soil.

10.0 HAZARD COMMUNICATION PROGRAM

Each contractor will be responsible for maintaining a copy of their Hazard Communication Program and MSDS's on site.

10.1 Material Safety Data Sheets

[1] Material Safety Data Sheets will be maintained at the Command Post in the Health and Safety Binder.
[2] MSDS's will be available to all employees for review during the work shift.
[3] See Attachment C and/or the ERRS Health and Safety Binder.

10.2 Container Labeling

[1] All containers received on site will be inspected by the contractor using the material to ensure the following:
   a. All containers clearly labeled
   b. Appropriate hazard warning
   c. Name and address of the manufacturer

10.3 Hazardous Chemical List

The following hazardous chemicals are inventoried and used at the site:

10.4 Employee Training and Information

[1] Prior to starting work, each employee will attend a health and safety orientation and will receive information and training on the following:
   a. An overview of the requirements contained in the Hazard Communication Standard
   b. Hazardous chemicals present at the site
   c. The location and availability of the written Hazard Communication Program
   d. Physical and health effects of the hazardous chemicals
   e. Methods of preventing or eliminating exposure
   f. Emergency procedures to follow if exposed
   g. How to read labels and review MSDS' to obtain information
   h. Location of MSDS file and location of hazardous chemical list

Refer to the ERRS/START Health and Safety Binder for the Hazard Communication Program and applicable MSDS's.

11.0 EMERGENCIES/ACCIDENTS/INJURIES

It is essential that site personnel be prepared in the event of an emergency. Emergencies can take many forms; illnesses or injuries, chemical exposure, fires, explosions, spills, leaks, releases of harmful contaminants, or sudden changes in the weather. The following sections outline the general procedures for emergencies. Emergency information should be posted as appropriate.

11.1 Emergency Contacts for Stimson Mill

Fire: 911

Police: 911

Sheriff: 911

Ambulance: 911

Hospital: St John's Lutheran Hospital
350 Louisiana Avenue
Libby, Montana
(406) 293-7761

Poison Control Center: 1-800-876-4766

*Directions from Site to Hospital (See Map in Attachment B):

NOTE: Maps and directions to the hospital will be posted in the Command Post office and Decontamination Area. Driving to hospital will only done in minor injury cases, for more serious injuries the US Forest Service will need to be contacted using one of the four US Forest Service radios, to dispatched a Forest Service Helicopter to the site using one of the two helipads.

The route to the hospital was verified by R. Singer on Sept. 27, 2004 Distance from site to hospital varies but does not exceed 15miles. Approximate driving time is 15 minutes or less.

The following individuals have been trained in CPR and First Aid:

Rick Singer

11.2 Additional Emergency Numbers

National Response Center	(800) 424-8802
U.S. EPA Region 8, E.R. Branch	(300) (24 hr)
Center for Disease Control	(770) 488-7100 (24 hr)
AT&F (Explosives Information)	(800) 424-9555
Chemtrec	(800) 424-9300
National Pesticide Hotline:	(800) 858-7378

Environmental Quality Management Inc. Contacts

EQ Regional Office (Seattle)	(425) 673-2900
EQ ERRS Hotline (24 hr)	(800) 726-6741
EQ Corporate H&S - J. Kominsky, CIH, CSP	(513) 825-7500
EQ Safety Manager – C. McKinney	(513) 825-7500
EQ Program Manager - J. Greber	(513) 825-7500
EQ Deputy Program Manager – R. McManamy	(425) 673-2900
Mercy Health Solutions - Dr. J. Tasset	(513) 874-8111

EPA

Federal Occupational Health Unit	(312) 353-0379

11.3 Emergency Equipment Available On-Site

Communications Equipment	Location
Private Telephones:	EQ office trailer or EPA Command Post
Two-Way Radios:	Command Post, CRZ and EZ
Emergency Alarms/Horns:	Command post, CRZ and EZ

Medical Equipment

First Aid Kits: Command post and CRZ

Inspection Date: _____ By:

Stretcher/Backboard:

Eye Wash Station: CRZ

Fire-Fighting Equipment

Fire Extinguishers: Command post, CRZ, and EZ

Inspection Date:_____ By:

Other:

Spill or Leak Equipment

Absorbent booms/pads and
Dry absorbent:CRZ and EZ

Additional Emergency Equipment

11.4 Accident Reporting/Investigation

See Attachment E for proper procedures.

12.0 EMERGENCY RESPONSE CONTINGENCY PLAN

12.1 Project Personnel Responsibilities During Emergencies

ON-SCENE COORDINATOR (FOSC)

As the administrator of the project, the FOSC has primary responsibility for responding to and correcting emergency situations. The FOSC will:

- Take appropriate measures to protect personnel including: withdrawal from the Exclusion Zone, total evacuation and securing of the site or up-grading or down- grading the level of protective clothing and respiratory protection.

- Take appropriate measures to protect the public and the environment including isolating and securing the site, preventing run-off to surface waters and ending or controlling the emergency to the extent possible.

- Ensure that appropriate Federal, State and local agencies are informed, and emergency response plans are coordinated. In the event of fire or explosion, the local fire department should be summoned immediately. In the event of an air release of toxic materials, the local authorities should be informed in order to assess the need for evacuation. In the event of a spill, sanitary districts and drinking water systems may need to be alerted.

- Ensure that appropriate decon treatment or testing for exposed or injured personnel is obtained.

- Determine the cause of the incident and make recommendations to prevent the recurrence.

- Ensure that all required reports have been prepared.

RESPONSE MANAGER (RM)

The RM must immediately report emergency situations to the FOSC, take appropriate measures to protect site personnel and assist the FOSC as necessary in responding to and mitigating the emergency situation.

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM (START)

The START must immediately report emergency situations to the FOSC, take appropriate measures to protect site personnel and assist the FOSC as necessary.

12.2 Medical Emergencies

Any person who becomes ill or injured in the Exclusion Zone must be decontaminated to the maximum extent possible when practical. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket.) First aid should be administered while awaiting an ambulance or paramedics. All injuries and illnesses must immediately be reported to the FOSC.

If the first aid provided to an injured person presents the possibility of exposure to blood or other body fluids or potentially infectious material, the caregiver must wear surgical type impermeable gloves. The exposure must be reported to the FOSC, the individual's supervisor and the Site Safety Officer within 24 hours of exposure, naming the injured person(s) and the person(s) administering first aid. Hepatitis B vaccination and treatment must be offered to exposed individuals within 24 hours or as soon as possible after exposure. Exposed individuals may decline the vaccination and treatment but must do so by means of a signed statement.

Any person transporting an injured/exposed person to a clinic or hospital for treatment should take with them directions to the hospital and information on the chemical(s) they may have been exposed to. This information is included in Table 3-1. Any vehicle used to transport contaminated personnel, will be cleaned or decontaminated as necessary.

12.3 Fire or Explosion

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival the FOSC or designated alternate will advise the fire commander of the location, nature and identification of the hazardous materials on- site.

If it is safe to do so, site personnel may:

- Use fire-fighting equipment available on site.
- Remove or isolate flammable or other hazardous materials that may contribute to the fire.

12.4 Spills, Leaks or Releases (see SPCC plan posted in command trailer)

In the event of a spill or a leak, site personnel will:

- Locate the source of the spillage and stop the flow if it can be done safely.
- Begin containment and recovery of the spilled materials.

12.5 Evacuation Routes and Resources

Evacuation routes have been established by work area locations for this site. All buildings and outside work areas have been provided with designated exit points. Evacuation should be conducted immediately, without regard for equipment under conditions of extreme emergency. See site map in Attachment B for evacuation routes.

- Evacuation notification will be three blasts on an air horn, vehicle horn, or by verbal communication via radio.
- Stay upwind from the smoke, vapors or spill location.
- Exit through the decontamination corridor if possible.
- If evacuation is not via the decontamination corridor, site personnel should remove contaminated clothing once they are in a location of safety and leave it near the Exclusion Zone or in a safe place.
- The FOSC will conduct a head count to insure all personnel have been evacuated safely.
- In the event that emergency site evacuation is necessary, all personnel are to:

    1. Escape the emergency situation;
    2. Decontaminate to the maximum extent practical; and,
    3. Meet at the predetermined area.

- In the event that the predetermined area is no longer in a safe zone to meet: **Up Wind**

12.6 Adverse Weather Reaction Plan

Adverse weather can take many forms. Severe thunder and lightning storms, winter storms, hail, freezing rain; flash floods and tornados are a few examples. Sudden changes in the weather, extreme weather conditions and natural disasters can create a number of hazards. Generally, adverse weather can create hazards due to slips, trips and falls, generation of airborne debris, electrical shock, etc. Natural disasters can create many secondary hazards such as release of hazardous materials into the environment, structure failure and fires.

In the event of impending adverse weather, continuous monitoring will provide current information regarding impending adverse weather. In addition, monitoring of weather broadcasts and television broadcasts will provide information on current weather conditions. The terms "tornado watch" and "tornado warning" may be used during the broadcasts. The former term means that conditions are favorable for their development although none have actually been sighted. The latter term means that a tornado has been visually sighted. Additional

weather terminology includes:

Weather Watch - tornado, severe t-storm, flash flood, winter storm, "Conditions are favorable for the development/occurrence of hazardous weather."
Weather Warning - by county issuance
Tornado - tornado sighted or indicated by radar
Severe Thunderstorm - winds > 50 mph an/or 1/4" hail stones sighted or predicted by radar
Flash Flood - sighted or indicated by radar

Information provided by the emergency and weather radio broadcasts will be used to determine whether and actions need to be taken by project personnel. The EPA FOSC in conjunction with the Response Manager and Site Safety Officer will decide what operations, if any, are safe to perform based on existing and anticipated weather conditions, and shall notify personnel when to stop operations and seek shelter.

Obviously, the best protection against most severe weather episodes and natural disasters is to seek shelter before a storm hits. When notification is given that severe weather (particularly tornados) is approaching an area where project personnel are located, begin to secure the site. If experiencing a severe weather the EPA FOSC will decide whether to stop work activities and have affected personnel seek shelter.

At the site, workers in Level B and C personal protective equipment will be instructed to: 1) leave the building, doff protective clothing and seek shelter (if adequate advance warning is given); 2) remain inside the building and sit away from any windows; and 3) lie down and curl up. All other field personnel should exit the trailers and seek shelter until the weather improves. Do not seek shelter under the trailers under and circumstances. If no warning is provided, personnel should leave the trailers and lie face down in low lying grassy areas away from the trailers or under any available box (moving) trucks located at the parking lot.
Additionally for tornados:

Tornado - Vacate trailers, automobiles and seek building/shelter on/above ground
Severe Thunderstorm - Lightning - avoid tall trees, metal objects, towers, fences, creek beds
Flash flood - seek higher ground

13.0 CONFINED SPACE

A confined space is defined as a space or work area not designed or intended for normal human occupancy, having limited means of access and poor natural ventilation, and or any structure, including buildings or rooms that have limited means of egress. Examples include tanks, vats and basements. If a confined space entry is conducted, it will be done in accordance with applicable OSHA standards.

The SSO will evaluate any confined space to determine if it is a Permit Required Confined Space (PRCS). If it is a Permit Confined Space, the SSO will perform a hazard evaluation and identify means of entry, work to be completed, exit procedures, emergency exit procedures, needed equipment, and assigned personnel. The PRCS-permit will be completed to reflect this evaluation. The Permit will be authorized by the RM and reviewed with the FOSC. The Permit, Entry Plan and SOP will be discussed with personnel assigned to the task (i.e. entrants, standbys, supervisor, and emergency responders). The fire department must be notified in advance if they are to be emergency responders. The permit will be valid for only one shift and one task. The permits will be maintained with site safety files.

Type of Confined Space	Location of Site	Comments

ATTACHMENT A

SITE SAFETY PLAN AMENDMENTS

SITE SAFETY PLAN AMENDMENT: #___ :

SITE NAME:

DATE: _____

TYPE OF AMENDMENT:

REASON FOR AMENDMENT:

ALTERNATE SAFEGUARD PROCEDURES:

REQUIRED CHANGES IN PPE:

ERRS Response Manager	(Date)	ERRS Safety Manager	(Date)
U.S. EPA FOSC	(Date)	ERRS Safety Manager (Team Subcontractor)	(Date)

ATTACHMENT B

SITE MAPS

ATTACHMENT C

CHEMICAL HAZARD INFORMATION

ATTACHMENT D

PERSONAL PROTECTIVE EQUIPMENT
AND
RESPIRATORY PROTECTION SOP'S

INSPECTION OF PERSONAL PROTECTIVE CLOTHING

[1] Determine that clothing material is correct for specified task
- a. Compatibility chart
- b. Chemical hazard chart in Safety Plan
- c. MSDS

[2] Visually inspect material for:
- a. Imperfect seams
- b. Non-uniform coatings
- c. Tears
- d. Discoloration/degradation
- e. Malfunctioning closures

[3] Hold up to light and check for pinholes.

[4] Flex material:
- a. Observe for cracks
- b. Other signs of shelf deterioration

[5] If the material has been used previously, inspect inside and out for signs of chemical penetration/degradation
- a. Discoloration
- b. Swelling
- c. Stiffness

[6] During the work task:
- a. Evidence of discoloration/degradation
- b. Closure failure
- c. Tears
- d. Punctures
- e. Seam discontinuities

RESPIRATORY PROTECTION

General Guidelines

[1] All personnel required to use respirators will select and use the respirators based upon guidelines established by OSHA, NIOSH and the Superior Respiratory Protection Program.

[2] All individuals required to wear respirators will have received a documented pre-issue qualitative fit test for the full-face.

[3] Each individual will be responsible for conducting a positive/negative fit check each time the respirator is donned.

[4] Each individual shall be responsible for cleaning his/her own respirator at least once daily and is permitted to leave the work area to wash his/her own respirator as needed.

[5] Cartridges or filters shall be changed after each daily use or whenever an increase in breathing resistance/odor is detected, or if they become wet. All changes will be made in uncontaminated areas.

[6] No field employee shall wear a respirator until he/she has been examined by a physician and determined to be physically able to wear respiratory protection. This examination shall be documented at the site.

[7] All personnel must be qualitatively fit test every six months.

Air Purifying Respirator Inspection and Checkout

[1] Visually inspect the entire unit for any obvious damages, defects, or deteriorated rubber.

[2] Make sure the facepiece harness is not damaged.

[3] Inspect lens for damage and proper seal in facepiece.

[4] Exhalation Valve
Pull off plastic cover and check valve for debris, tears or deformities in the neoprene valve.

[5] Inhalation Valve
Screw off cartridges/canister and visually inspect neoprene valves for tears. Make sure than inhalation valves and cartridge receptacle gaskets are in place.

[6] Insure that the speaking diaphragm retainer ring is hand tight.

[7] Make sure than you have the correct cartridge.

[8] Don and perform positive and negative pressure check.

Storage of Air Purifying Respirators

[1] OSHA requires that respirators be stored to protect against:

* Dust
* Sunlight
* Heat
* Extreme Cold
* Excessive Moisture
* Damaging Chemicals
* Mechanical Damage

[2] Respirators must be stored in a clean area, which is not likely to be contaminated by the work in progress.

[3] Respirators should not be hung from their headbands for prolonged periods.

SCBA Inspection and Checkout

[1] Monthly Inspection

a. Check cylinder label for current hydrostatic test date
b. Inspect cylinder for large dent or gouges
c. Inspect cylinder gauge for damage
d. Complete routine inspection
e. Fill out inspection documentation card

[2] Routine Inspection

a. Pre-Operational
   * High-pressure hose connector is tight on cylinder fitting
   * By-pass valve is closed
   * Mainline valve is closed
   * Regulator outlet is not covered or obstructed

b. Backpack and Harness Assembly
   * Inspect backpack/harness straps for wear, damage, secure
   * Check wear and function of belts
   * Check backplate and cylinder holder for damage

c. Cylinder and High Pressure Hose Assembly

* Check cylinder to insure firmly attached to backplate
* Open cylinder valve; listen or feel for leakage around packing and hose connection
* Check high-pressure hose for damage or leaks

d. Regulator

* Cover regulator outlet with palm of hand
* Open mainline valve
* Remove hand from regulator outlet
* Open by-pass valve slowly to assure proper function
* Close by-pass valve
* Open mainline valve
* Note pressure reading on regulator gauge
* Close cylinder valve while keeping hand over regulator outlet
* Slowly remove hand from outlet and allow air to flow
* Note pressure when low pressure warning alarm sounds; it should be 550-650 psi
* Close mainline valve
* Check regulator for leaks by blowing air into regulator for 5-10 seconds
* Draw air from outlet for 5-10 seconds
* If a positive pressure or vacuum cannot be maintained, there is a leak.

e. Facepiece & Corrugated Breathing Hose

* Inspect head harness and facepiece for damage, serrations and deteriorated rubber
* Inspect lens for damage and proper seal in facepiece
* Inspect exhalation valve for damage and dirt buildup
* Stretch breathing hose and carefully and inspect for holes and deterioration
* Inspect connector for damage and presence of washer
* Perform negative pressure test with facepiece donned

f. Storage

* Refill cylinder to 2216 psi
* Close cylinder valve
* Tightly connect high-pressure hose to cylinder
* Bleed pressure from high-pressure hose by opening mainline valve
* Close by-pass valve
* Close mainline valve
* Fully extend all straps
* Store face piece in a clean plastic bag for protection

ATTACHMENT E

ACCIDENT REPORTING/INVESTIGATION

- All injuries or accidents must be reported to the Response Manager or Site Safety Officer immediately.

- The Response Manager will conduct an immediate investigation of the accident and document all results on the Supervisor's Accident Investigation Report and State Worker's Compensation Form.

- The Response Manager will assign a supervisory individual to accompany all injured personnel to the clinic.

- Copies of all Supervisor's Accident Reports will be sent to the ERRS PM, ERRS DPM, and the ERRS Safety Manager (Team Subcontractor).

ATTACHMENT F

SITE WALKTHROUGHS / ENTRY

ATTACHMENT G

TRUCK LOADING

ATTACHMENT H

WORKING AROUND HEAVY EQUIPMENT

ATTACHMENT I

HEAT AND COLD STRESS

ATTACHMENT J

EXCAVATION

ATTACHMENT K

CONFINED SPACES

ATTACHMENT L

HOUSEKEEPING AND MATERIAL STORAGE

ATTACHMENT M

TRAFFIC CONTROL

ATTACHMENT N

FIRE PREVENTION AND PROTECTION

1) FALL PROTECTION (SPECIFICS)

2) MORE SPECIFICS ON [illegible]

3) DELEGATIONS FOR FOSC REP.

STATEMENT-OF-WORK
FOR WORK AUTHORIZATION NO. 9
For the U.S.Coast Guard
Libby Asbestos (Stimsom Lumber Mill) Site
Libby, MT

GENERAL DESCRIPTION

The United States Coast Guard., Pacific Strike Team will provide two person teams on three week rotations to assist with EPA oversight of the Vermiculite Intermountain Site during a Time Critical Removal Action (TCRA). The TCRA resulted from deposition of 'Libby Amphibole' (LA) ('asbestos')-contaminated insulation and residue in an abandoned lumber mill in Libby, MT generally between 1940 and the late 1980's.

The Team is requested to mobilize to Libby, MT by the afternoon of Tuesday, July 6, 2004,

The mill is no longer in operation, however, there are one or two businesses that occupy office space in ancillary office areas of the building, and will be impacted by the TCRA. The anticipated work schedule will by 5 ten hour days, Monday through Friday. The majority of the work on site will be inside the lumber mill removing insulation and LA contaminated dusts. There will be some work outside excavating LA contaminated soils (extent unknown at this time). Site removal activities are expected to commence on Wednesday, July 7th, and anticipated completion date is Friday, September 3rd.

SPECIFIC TASKS

The Teams activities may include, but not necessarily limited to, assisting the OSC with:

1) Review of and comment on Work Plan(s) developed by the various entities associated with the TCRA;
2) Oversight of ERRS and Volpe Center contractors responsible for conducting the TCRA at the Stimsom Lumber Mill;
3) Assist with collection and evaluation of air and soil samples;
4) Review of 1900-55 cost documentation provided by the ERRS contractor;
5) Documentation of major site happenings (ie conversations with neighboring businesses, residents, contract disputes, etc.).
6) Provide (weekly) updated POLREPs to the OSC for subsequent posting to WEBEOC;
7) Applicable Site costs for U.S.C.G. services should be charged to EPA Account No. 2004 T 8ALOE 302DC6C 08BCRV00. The Site Superfund ID is 08GA.